

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A micro controller, comprising a CPU, performing processing in accordance with a program,
said micro controller further comprising:
a memory, storing: grouped compressed codes, resulting from the conversion of original codes into variable length codes,
an address conversion information, specifying the head address of each group of grouped compressed codes of variable lengths; and
a compressed code type informations in a block corresponding to each group information, each specifying, ~~according to each group,~~ the code length of each of the compressed codes ~~code~~ of variable lengths contained in each group; and
a compressed code processing part, specifying, from a code address output by the CPU, an address conversion information and compressed code type information to be referred, using the specified address conversion information and the compressed code type ~~information~~ informations to determine the corresponding compressed code address, and reading the corresponding compressed code.
2. (Original) The micro controller as set forth in Claim 1, wherein
the memory furthermore stores dictionary information for decompressing compressed codes into the original codes and
the compressed code processing part refers the dictionary information to decompress the compressed code, which has been read, into the original code.

3. (Original) The micro controller as set forth in Claim 1, wherein
said compressed code processing part stores information for identifying the
area in said memory in which compressed codes are stored, the area in said memory
in which the address conversion information are stored, and the area in which the
compressed code type information are stored.

4. (Previously presented) The micro controller as set forth in Claim 3,
wherein
said memory stores said address conversion information in the order of blocks
of original codes, and
to store said compressed code type information in the order of the original
codes.

5. (Original) The micro controller as set forth in Claim 2, wherein
said dictionary information are stored in areas that are divided according to
the code lengths of the corresponding compressed codes, and in each area, said
dictionary information are stored in the order of the codes of said corresponding
compressed codes.

6. (Original) The micro controller as set forth in Claim 5, wherein
said compressed code processing part specifies, from the compressed code
type information, the area in which the dictionary information to be referred is
stored, and, based on the compressed code, specifies the dictionary information to be
referred that is contained in the specified area.

7. (Original) The micro controller as set forth in Claim 1, wherein

said compressed code processing part reads, from said memory and prior to reading a compressed code, a compressed code set, having a predetermined size and containing the compressed code to be read,

said micro controller is equipped with areas, respectively storing temporarily the address conversion information, the compressed code type information, and the compressed code set that were used just immediately before,

to use the address conversion information and the compressed code type information that are stored temporarily in said areas in a case where the code address output by the CPU is contained in the same block as the compressed code that was read just immediately before, and

to read the compressed code from the compressed code set that is stored temporarily in said area in a case where the compressed code corresponding to the code address output by the CPU is contained in the compressed code set that was read just immediately before.

8. (Previously presented) The micro controller as set forth in Claim 1, wherein

said compressed code contains the same program as the original code.

9. (New) The micro controller as claimed in claim 1, wherein the code address includes a group number identifying the head address of the group and an order number identifying the compressed code type information in the block corresponding to the group identified by the group number, and the processing part determines a base address of the block of the compressed code type informations in accordance with the group number and a distance from the base address to the compressed code type information identified by the order number using a sum of

Appl. No. 10/611,315
Amdt. Dated November 12, 2007
Reply to Office Action of October 31, 2007

Attorney Docket No. 83394.0008
Customer No. 26021

values of the compressed type informations between the base address and the compressed code type information identified by the order number (p17-18).